



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,256	12/07/2000	Peter Leslie Hart	BKR-21102/01	5947

7590 08/15/2002
Douglas W Sprinkle
Suite 400
280 N Woodward
Birmingham, MI 48009

EXAMINER

ADDIE, RAYMOND W

ART UNIT PAPER NUMBER

3671

DATE MAILED: 08/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/719,256

Applicant(s)

HART, PETER LESLIE

Examiner

Raymond W. Addie

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 20 May 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1,2,4,6-9 and 11-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,2,4,6-9 and 11-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 6, 7, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. # 5,051,023 in view of Geiger # 5,645,369.

Yoshida et al. discloses a paving block for use in roadway construction.

Said paving block comprising:

An upper and lower surfaces (5, 1).]

A plurality of lateral faces (1₁, 1₂) extending between said upper & lower surfaces.

Said lateral faces being tapered along an entirety of an upper edge (3).

Said tapering may alternatively be inclined or rounded edges, in the order of zero to a few millimeters, or 0-60°.

Said paving block, when in use/contact with other, similar paving blocks; form

upwardly opening gullies (2). See Figs. 2A, 2B; Col. 2, line 55-cols. 3, line 33.

What Yoshida et al. does not disclose is providing vertical drainage slots in said lateral faces (1₁, 1₂). However, Geiger teaches a concrete paving stone having a plurality of recesses (5, 7) extending between an upper and lower surfaces of said paving stone. When in use, said paving stone contacts lateral faces of similar paving stones, to form vertically oriented, shallow recesses, for surface water drainage below the paved so

formed paved surface. See Geiger, col. 1-2. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the paving stone of Yoshida et al. with shallow, vertically oriented drainage slots, as taught by Geiger, in order to permit surface water to drain below the paved surface.

In regards to Claim 2, Yoshida et al. discloses the portion (l_6) of said lateral faces (l_1, l_2), which is tapered, extends over 10-80% of the entire height of lateral faces (l_1, l_2). See Col. 3, lines 1-33.

In regards to Claims 4, 6, 7 both Yoshida et al. and Geiger disclose a paving block made of cement, which is impermeable when cured. Further, Geiger teaches providing at least one shallow, vertically oriented drainage channel (5, 7) on each lateral face (l_1, l_2), and that the depth of the channel may be varied, in order to provide a desired permeability. See col. 1, lines 26-32, lines 41-46.

In regards to Claims 17-19 Yoshida et al. discloses the upper surface (5) of the block (1) has a beveled edge portion (4), at an angle between 0 and 60° with respect to the upper surface (5), around its periphery, at its common edge with said tapered portion (2) of said lateral surface. Said beveled edge portion being inclined with respect to said lateral surface at a greater angle than said tapered portion thereof. Yoshida et al. further discloses a horizontal shoulder (2), separating said tapered portion surface portion from said beveled edge portion. See Figs. 4A, 4B, 4C; Col. 3, lines 1-33.

2. Claims 8, 9, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landers # 572,762 in view of Geiger # 5,645,369.

Landers discloses a paving surface for the liquid spillage, comprising:

A permeable layer constructed at least partially of close fitting, without joint filling, of a plurality of paving blocks (E) having an upper, lower surface and a plurality of lateral faces. Said blocks having a substantial portion (3), of at least two lateral surfaces, of the paving block, extending to the upper surface, being tapered along the entirety of the edge between the upper surface and the lateral face.

Wherein at least one of the lateral surfaces has a plurality of vertically oriented channels (5, 8) extending from the upper surface to the lower surface. Said channels being positioned as to form, when the block is placed in abutting contact with another, similar block, in use thereof, upwardly open gullies (4), formed by 2 facing channels (5-5, 8-8).

A supporting substrate layer (A), which is of particulate material, and provides drainage troughs (B) for receiving spilled liquids that have filtered through the permeable layer of vertically channeled paving blocks (E).

What Landers does not disclose is utilizing the paving block in outdoor applications.

However, Geiger teaches a concrete paving block (1) for use in subsoil/subbase applications, such as roadways and sidewalks. Said subsoil being of particulate material having interstitial cavities for receiving rainwater that has filtered through a permeable layer consisting of said paving blocks (1). Geiger further discloses providing

a paving stone having a plurality of small-sized chamfers along an entirety of its top side, and being inclined from the top continuously along the lateral sides, in order to form upwardly opening gullies for the collection of rainwater toward a plurality of narrow slot-like drainage passages formed by 2 shallow channels of adjacent tapered paving blocks. Said tapered portion being in the order of an angle of 0-15⁰ or zero to a few millimeters. Said shallow channels alternatively having semi-circular, rectangular, square or trapezoidal cross-sections of varying sizes in order to manage permeability between said blocks. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the paving block of Landers, with shallow channels of varying sizes and shapes, as taught by Geiger, in order to utilize the paving block in lawn-type paving applications. See Geiger col. 1, lines 26-55, col. 2, lines 1-39.

In regards to claims 9, 16 Landers discloses the permeable layer is formed substantially entirely by tapered, paving blocks (E) made from an impermeable material, such as cement.

3. Claims 11, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landers in view of Geiger as applied to claim 8 above, and further in view of Jones et al. # 5,980,155.

Landers in view of Geiger discloses essentially all that is claimed, except for providing a filtering layer disposed between the permeably layer and the substrate layer. However,

Jones et al. discloses a composite geosynthetic and method of use comprising: A dispersion layer disposed upon a filtering layer (see fig. 4c) for removal of pore pressure and the elimination of contaminants from a body of soil such as reinforced soil structures. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the paving surface of Landers in view of Geiger with a geosynthetic layer, as taught by Jones et al. in order to support a traffic surface upon a soft subgrade, as is found in lawn-paving applications. See Jones et al. Col. 1-2, col. 13, lines 30-36.

4. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landers in view of Geiger as applied to claim 8 above, and further in view of Peggs # 5,788,413.

Landers in view of Geiger discloses essentially all that is claimed, except for providing a containment membrane of impermeable material. However, Peggs teaches a geocomposite membrane that is impermeable to water and oil. Said membrane comprising one or more dividing means (14) for dividing sections within the containment membrane, as well as, drainage means (13) for drainage of fluids within said membrane. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the paving surface of Landers in view of Geiger, with a containment membrane, as taught by Peggs, in order to prevent oil or

water from contaminating the soil adjacent a roadway or landfill. See Peggs col. 1, lines 5-13, col. 5, lines 52-col. 6, line 45.

Response to Amendment

5. The Applicant's amendments to Claim 1, requiring application for wheeled traffic applications, and to Claim 8 requiring specific structural details of the blocks and specific functional relationships, and New Claims 17-19 has necessitated an new search, and a New Grounds of Rejection, as cited above.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 2, 4, 6-9, 11-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rinniger # 4,792,25 discloses a paving stone having clothodially rounded edges.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Addie whose telephone number is (703) 305-0135. The examiner can normally be reached on Mon-Fri from 6:30 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will, can be reached on (703) 308-3870. The fax phone number for this Group is (703) 305-3597.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.


Thomas B. Will
Supervisory Patent Examiner
Group 3600

RWA
8/10/2002